Montana Department of Environmental Quality

SWAP NEWS

Pollution Prevention Bureau

Summer 2001

For many of you, this might be the first time you've seen the *SWAP NEWS*, so we would like to explain why you've received it and what to expect in the future.

This annual newsletter, the *SWAP NEWS* (*a*n acronym for the "source water assessment program newsletter"), is published by the Department of Environmental Quality (DEQ) to keep public water system (PWS) operators abreast of source water related happenings and issues. The first newsletters (1998-99) were sent to those with an expressed interest in wellhead or source water protection issues. We have expanded the subscriber's list to include all community and non-community non-transient water system operators to keep you informed about the program since implementation of the assessments is required by the federal Safe Drinking Water Act.

We need your help to meet the implementation deadline imposed by federal law for completion of source water assessment reports. Since most of our work will occur through our office in Helena, we will be contacting you by phone or mail to ask about your wells or distribution system. We are confident that we can meet the requirements of the federal Safe Drinking Water Act within the deadline if we cooperate with those who best know the system and area, namely you, the PWS operator.

If you have any questions about the Source Water Assessment Program (SWAP), please call Joe Meek at DEQ (406-444-4806). Or, if you'd like a few more details concerning the program, take a look at the *Big Sky Clearwater Spring 2001*. If you would like to be removed from the mailing list, please contact Deb Williams at 444-4643 or 444-6697.

SOURCE WATER ASSESSMENT PROGRAM OBJECTIVES

❶ *Identify the source(s) of water used by Public Water Systems*

Source water protection areas are delineated for ground water and surface water sources. This technical process considers characteristics of the aquifer or watershed and the public water system intake. It then identifies the land area that contributes recharge to the hydrologic or hydrogeologic system above or upgradient from the public water system well or intake structure. These protection areas are part of a source water delineation and assessment report (SWDAR) and are shown graphically on a map. You can also see examples of completed reports on the Internet at: **http://nris.state.mt.us/wis/swap/swaplist.asp**

❷ *Identify and Inventory Potential Contaminant Sources*

Potential contaminant sources within the source water protection area are identified and described in the assessment report. Regulated contaminants of concern in Montana include nitrate, microbial contaminants, and certain fuels, solvents, herbicides, pesticides, and metals. Potential contaminants sources include septic systems, animal feeding operations, underground storage tanks, floor drains and sumps, and certain land use activities.

❸ *Assess the Susceptibility of Public Water Systems to potential contaminant sources*

A susceptibility assessment consists of evaluating the setting of the well or intake and the relative hazard posed by potential contaminant sources. A determination of relative susceptibility for each significant potential contaminant source identified within the source water protection area will be in the assessment report.

❹ *Make the results of the delineation and assessment available to the public*

Source water assessments must be made available to the public; this is accomplished by completing a technical report that addresses items one through three above. Various media are used to distribute the reports including the SWAP Internet site, state library, and excerpts in the consumer confidence reports.

WHO WILL BE AFFECTED BY SOURCE WATER ASSESSMENT?

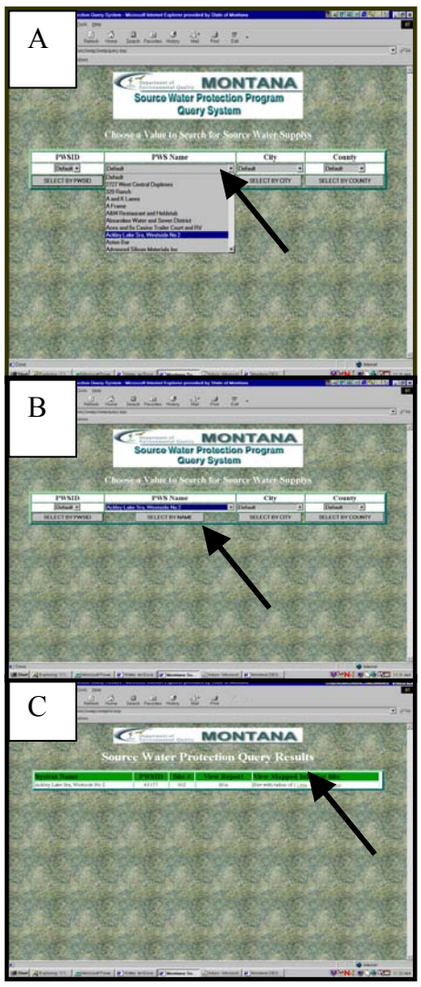
❶ **Public water systems** will receive a technical report describing their water source(s) sometime before May 2003. DEQ's source water protection program will prepare these reports. Alternatively, certain public water systems may be able to use their own contractor to do the work using program funds.

❷ **Property or business owners** that engage in certain activities regulated by DEQ might be identified on maps provided to public water systems. The information is provided to encourage communication and cooperation between public water systems and those that may impact the water resource.

❸ **Environmental consultants or researchers** who may contract with public water systems to complete delineation and assessment reports.

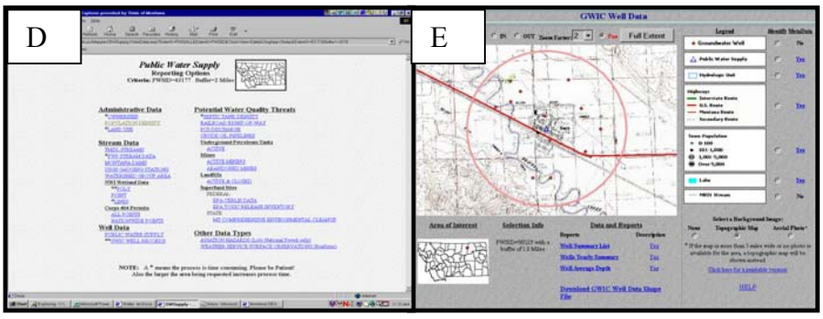
❹ **Users of public water systems** will be able to access information about their water supply.

Source Water Protection Mapping on the Web



Have you ever wanted to see your own public supply well plotted on a USGS topographic map? Better yet, have you ever wanted to see a map that shows your public water supply well and potential contaminant sources in the surrounding area? Or, would you like to see an aerial photograph (orthophoto) of the area covered by the map of your public water supply? The Source Water Protection Program's mapping system gives you the ability to do all of the above and more from the comfort of your own web browser. The Map Query System (MQS) was built under a joint project with the Natural Resource Information System (NRIS). You can find the MQS at this web address: http://nris.state.mt.us/wis/swap/swapquery.asp.

To use the MQS, pick a public water supply name (Figure A) and then click on the "Select By Name" button (Figure B). On the next screen, select a buffer distance (Figure C), and on the following screen select the type of information you want to see (Figure D). The next screen will show your map; you can use the **Select a Background Image** (Figure E) to display the USGS topo map as the background. Give it a try and if you have questions contact the Source Water Protection Program at the phone numbers and email addresses on the back of this news letter. In addition, NRIS has other web programs that put a lot of mapping power at your fingertips. Check those programs out at this web address: http://nris.state.mt.us/mapper



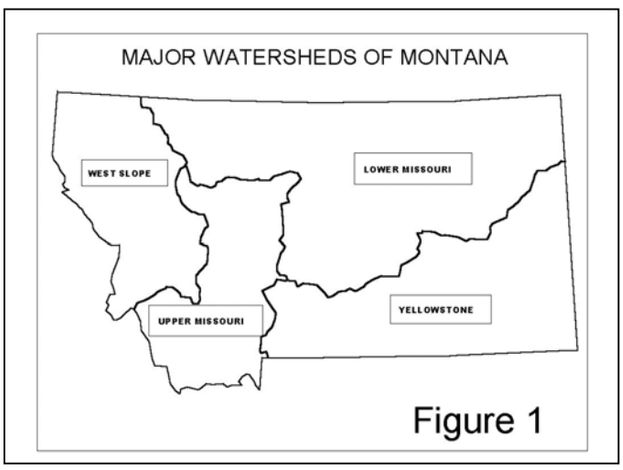
Watersheds in Montana

In Montana, implementation of the source water assessment program is based on a watershed approach that: 1) identifies SWAP implementation priorities within each major watershed, 2) assigns oversight responsibilities to program staff for source water assessments within each of the major watersheds, 3) tracks program implementation within each watershed.

Utilizing a watershed approach:

- Allows easier management by dividing the state into smaller units (see Figure 1)
- Fosters coordination with other programs at DEQ
- Encourages coordination of PWS management plans within watershed sub-areas
- Helps meet the federal requirement that the state use an integrated watershed approach that is well integrated with other water or natural resource programs for assessment, protection, and remediation
- Helps the state effectively incorporate a variety of organizations and interests into its implementation of non-point source activities and projects as required by the federal Clean Water Act.

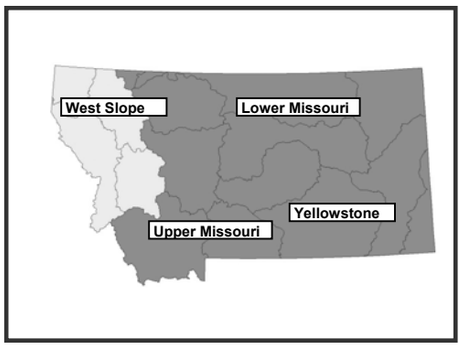
Completion of Source Water Delineation and Assessment Reports (SWDARs) will be accomplished through the combined efforts of the DEQ source water protection watershed coordinator, participating public water supplies (PWSs), and contractors working on behalf of the PWS. If you would like more information on source water assessments and watershed planning, contact Joe Meek at 406-444-4806.



Yellowstone River Project Area

The Yellowstone River Watershed (YRW) Project Area includes the area south of the Yellowstone River from its headwaters in the Paradise Valley to the Montana-North Dakota border. The watershed is comprised of about 27 sub-basins with more than 400 Public Water Supplies (PWSs). The effort to complete SWDARs for the watershed will focus on sub-basins with large numbers of high priority PWSs. Project areas include the Upper Yellowstone Watershed (Paradise Valley/Gardner area), the Billings area (five large surface water PWSs and other smaller systems), the Tongue and Powder River basins, and 33 schools scattered throughout the watershed. The Source Water Protection Program staff has collected background information for these project areas. We are in discussion with the city of Billings about ways to lead the source water project on behalf of the other surface water system near Billings. For more information on the Yellowstone River Watershed please call Jim Stimson at 406-444-6832.

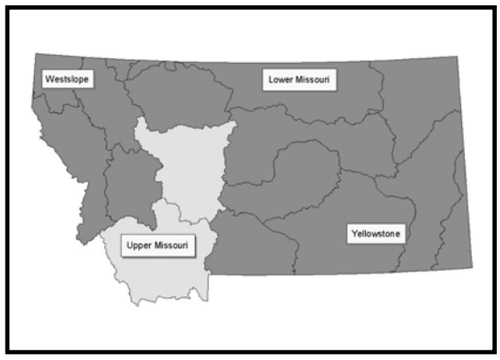
Western Slope Watershed Project Area



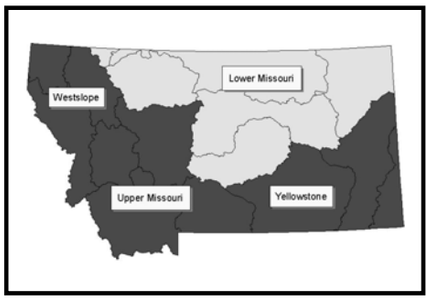
The Western Slope Watershed (WSW) Project Area includes the area west and north of the Continental Divide from the Canadian Border in Glacier National Park to Chief Joseph Pass south of Darby. The watershed is comprised of the drainage basins of the Kootenai River, The Upper Clark Fork and Lower Clark Fork River, and the Flathead River. Within the Western Slope Watershed there are more than 927 PWSs. These PWSs use both surface water and groundwater as sources for their drinking water with a diversity of aquifer types present within these watersheds. Please contact Jeffrey Herrick at 406-444-1595 for more information on the Western Slope Watershed.

Upper Missouri River Watershed

The Upper Missouri River Watershed (UMRW) is located in west-central Montana. The watershed is comprised of 13 sub-basins with more than 500 PWSs. The effort to complete SWDARs for the watershed will focus on sub-basins with large numbers of high priority PWSs. The largest project areas in this watershed include the Upper Missouri Watershed (Helena & surrounding area), Gallatin Watershed (Bozeman & surrounding area), and the Upper Missouri-Dearborn Watershed (Great Falls & surrounding area). There are approximately 26 schools within the UMRW. For more information on the Upper Missouri River Watershed please call Carolyn DeMartino at 406-444-0820.



Lower Missouri Watershed



The Lower Missouri Watershed encompasses the Missouri River watershed from the Marias River confluence to the North Dakota border. Approximately 350 PWSs are located in 39 sub-basins in the watershed. The Lower Missouri Watershed is broken up into 12 project areas based on regional geology and geography. Source Water Protection Program staff are currently collecting background data and information for the completion of SWDARs for PWSs located in the Wolf Point, Poplar, and Culbertson areas. For more information on Source Water Protection activities in the Lower Missouri Watershed, please contact Perri Phillips at 406-444-0471.

Funding Available for Source Water Assessment Reports

The Planning, Prevention and Assistance Division at DEQ is pleased to announce the availability of funds that can be used directly by a public water supply to help complete the source water delineation and assessment reports. These reports describe the source of water that reaches your intake or well(s), identify potential contaminant sources, and assess the susceptibility of your water to contamination. You may have a city engineer, utility department, planning department, or even a GIS program that can complete this type of project. Or, you can use these funds to contract with a consulting hydrogeologist or engineering firm.

Proposals to utilize this funding will be from: 1) community or non-community non-transient public water systems; 2) local governments; or, 3) state or federal research entities or not-for-profit organizations. To qualify the proposal should exhibit some or most of the following characteristics: high or moderate source water sensitivity, high number of water system users, resolve to develop a source water protection plan, intent to complete delineation and assessments for multiple PWSs under a single project. Proposals are scored based on criteria established by the Montana Source Water Protection Program and must meet a minimum score to qualify for funding. Once approved, a project is implemented through a contract between DEQ and the PWS or sponsoring entity.

The typical community PWS can receive up to $3,000; the PWS needs to contribute at least 40% of the project cost. This doesn't need to be a cash outlay; it can be an "in kind" service such as the cost of staff time needed to support the project. If the project is to be completed by a sub-contractor, you may need to solicit bids through a request for proposal (RFP) process. Costs that a PWS incurs for completing the RFP can be counted towards the match requirement.

Please contact Joe Meek at the number listed below to find out how to put together a project proposal. He can provide you with a description of what is needed in a proposal and even include a sample format to follow.

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